

Remarks/Arguments:

Claims 1-4, 6, 11-14, 16-21, and 23-29 were pending at the time of the office action. All of the claims have been amended as needed to recite, in clearer language, that the compositions include feather fiber mats as ingredients, as supported in paragraph [0025] of the application as filed. Claim 1 is further amended to clarify that the claimed material is that resulting from curing a composition comprising the recited ingredients, as supported throughout the specification. Claims 6 and 16 are canceled herewith. No new matter has been added.

Claims 1-4, 6, 11-14, 16-21, and 23-29 are rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over U.S. 6,121,398 ("Wool"). The examiner finds disclosure of all of the claim elements in Wool, except for the one reciting feather mats. The examiner admits that Wool is silent regarding the presence of feather mats. However, the examiner asserts that Wool inherently discloses this feature. Applicants respectfully disagree, for the following reasons.

"In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original) "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' " *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (emphasis added)

The examiner asserts that since "feathers inherently possess barbules that are organized and are easily stacked together into interlocking form, the examiner has a reasonable basis that the claimed 'feather mats' feature is inherently possessed by Wood et al." Applicants disagree with this conclusion, and point out that while feathers themselves may indeed contain interlocking barbules, this need not be the case for feather fiber, a required ingredient recited in the now-amended claims. There is a considerable difference between feathers and the material referred to as "feather fiber." Applicants invite the examiner's attention to page 9 of the application at lines 4-6, where it is stated that "The density of chicken feather fiber is 0.796 g/cm³. They are

very light materials having an average diameter of 6 μm and length of 8 mm." As indicated by their physical proportions alone, such tiny particles are clearly not feathers but rather, as the name implies, fibers derived from feathers. Figure 7 of the application shows an SEM micrograph of the fracture surface of a composite containing the feather fibers. The examiner has not asserted that barbules are evident in these images, nor has he asserted that mats are present. Indeed, Applicants submit that they are not. The American Heritage Dictionary Of The English Language, New College Edition (Houghton Mifflin Company, 1981) defines a "mat" as "any densely woven or thickly tangled mass: *a mat of hair*." No such feature is visible in Figure 7, and in at least this example, a composite comprising feather fiber does NOT show evidence of the presence of a feather fiber mat. Therefore, it is clear that the presence of feather fiber does not necessarily result in the presence of feather fiber mats as presently recited in the claims.

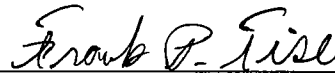
Simple logic also dictates the conclusion that the mere presence of some undisclosed (and possibly tiny) amount of feather fiber does not necessarily imply the presence of a mat. Regarding this, Applicants note that Wool does not teach or suggest that feather fiber is the only fibrous component, or even the main one, in any of his structures. There appear to be only two places in Wool where the word "feather" is used: at column 2, line 30 and in claim 18, and in both places, there is no reference as to the amount used. In fact, there is no teaching at all in Wool as to the amount of feather to use. It might be any amount, and might in fact constitute only a fraction of the total fiber present in the composition. The examiner will certainly appreciate that if only a very small amount of feather fiber is used in a composition, most of the fibers will not even touch each other and they will not be able to form anything resembling a mat (a "densely woven or thickly tangled mass"). This understanding is supported by the present disclosure. See the Abstract, which refers to "...various concentrations of chicken feather fibers or the fiber mats...", thus clarifying that dispersed feather fibers and fiber mats are alternative ways of incorporating feather fibers; they are not the same. Feather fibers can be used as dispersions rather than as mats. See also paragraph [0021] of the application as filed, where it is stated that "0, 5, 10, 20 wt % of chicken feather fiber was mixed physically and the composites were molded in a silicon rubber mold. Some composites, with higher (>20 wt %) concentrations of CF, were prepared by using a vacuum assisted resin transfer molding (VARTM) process using CF mats (Tyson Foods Inc.)." (emphasis added)

Clearly, an indication of the mere presence of some undisclosed amount of feather fiber, dispersed in a reactive matrix, is not necessarily a disclosure of a feather fiber mat. But the

necessary disclosure of a feather fiber mat by the disclosure of feather fibers in the Wool reference is the proper test for inherent disclosure, and it is a test that the Wool reference fails to meet. Wool fails to disclose the claim element of a fiber mat, either explicitly or inherently, and therefore the instant claims are not anticipated.

Applicants submit that the rejection has been overcome, and request reconsideration and allowance of the claims. Applicants invite the examiner to contact their undersigned representative, Frank Tise, if it appears that this may expedite examination.

Respectfully submitted,



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RAD/FPT:crj

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